66222-117 1/13/2014 1/34

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Mr. Jonathan A. Janis
Makhteshim Agan of North America, Inc
3120 Highwoods Blvd.; # 100
Raleigh, NC 27604

JAN 13 2014

Subject: Product Name: Orius 3.6 F
EPA Reg. No. 66222-117
Submission date: 12/10/13
Notification per PRN 98-10: Corrects typographical errors, clarifies a state restriction and moves the approved chemigation section to a second location
Decision Number 486136

Dear Registrant:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 12/10/13 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have questions concerning this letter, please contact Banza Djapao at 703-305-7269, or via e-mail at djapao.banza@epa.gov, or myself at 703-305-5410.

Sincerely,

Hope Johnson
Product Manager, Team 21
Fungicide Branch
Registration Division (7504P)

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 05-31-98

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [ ] Registration
- [ ] Amendment
- [x] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
Makhteshim Agan of North America, Inc./ 66222-117	Hope Johnson	[x] None [ ] Restricted
4. Company/Product (Name) Makhteshim Agan of North America, Inc./ Orius 3.6F	**PM#** 23	

5. Name and Address of Applicant *(Include ZIP Code)*
Makhteshim Agan of North America, Inc.
3120 Highwoods Blvd., Suite 100
Raleigh, North Carolina 27604

[ ] *Check if this is a new address*

6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
EPA Reg. No. _____
Product Name _____

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [x] Notification - Explain below.
- [ ] Final printed labels in response to Agency letter dated _____
- [ ] "Me Too" Application.
- [ ] Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

NOTIFICATION: Makhteshim Agan of North America, Inc. (MANA) is submitting a registration action for the end-use product, Orius 3.6F, EPA Reg. No. 66222-117. This Notification corrects typographical errors, clarifies a state restriction and moves the approved chemigation section to a second location on the label.
For communication via email please use this address: jjanis@manainc.com

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes* [ ] No	[ ] Yes [ ] No	[ ] Yes [x] No	[x] Metal [x] Plastic [ ] Glass [ ] Paper [ ] Other (Specify) _____
* *Certification must be submitted*	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
[x] Label [x] Container		[x] On Label [ ] On Labeling accompanying product

6. Manner in Which Label is Affixed to Product: [ ] Lithograph [x] Paper glued [ ] Stenciled [ ] Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Jonathan A. Janis	Federal Regulatory Leader	919-256-9322

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature	3. Title
Jonathan A. Janis	Federal Regulatory Leader
4. Typed Name	**5. Date**
Jonathan A. Janis	Dec. 10, 2013

12/16 3/34

MANA
Crop Protection
3120 Highwoods Blvd.
Suite 100
Raleigh, NC 27604
P: (919) 256-9300
F: (919) 256-9308
www.manainc.com

REGISTRATION ACTION:
Notification

10 December 2013

Mrs. Hope Johnson, Product Manager 23
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7505P)
Registration Division US EPA
One Potomac Yard, 2777 South Crystal Drive
Arlington, VA 22202

Subject: Orius 3.6F; EPA Reg. No. 66222-117;

Dear Mrs. Johnson:

Makhteshim Agan of North America, Inc. (MANA) is submitting a registration action for the end-use product, Orius 3.6F, EPA Reg. No. 66222-117. This Notification corrects typographical errors, clarifies a state restriction and moves the approved chemigation section to a second location on the label.

Enclosed in support of this regulatory action are the following documents:
- EPA Form 8570-1; Application for Pesticide Registration
- One copy of the proposed labeling annotated
- One copy of the proposed labeling

This notification is consistent with the provisions of PR Notice 98-10 and the EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling. I understand that it is a violation of 18 U.S. C. Sec. 1001 to willfully make any false statements to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Should you have any questions or comments pertaining to MANA's Orius registrations, please feel free to contact me via email at jjanis@manainc.com or via phone at (919) 256-9322.

Sincerely,

Jonathan A. Janis

Jonathan A. Janis
Federal Regulatory Leader

4/34

Orius® 3.6F

Group	3	Fungicide

Foliar Fungicide

NOTIFICATION

JAN 13 2014

MASTER LABEL

A: Agricultural Uses

- **Vegetable Crops** including Asparagus, Beans (fresh & dry; except succulent shelled), Cucurbit Vegetable Crop Group, Dry Bulb Onion, Garlic, Great-Headed (Elephant) Garlic, Welsh Onion, Shallot, Green Onion, Leek, Spring Onion, Scallion, Japanese Bunching Onion, Green Shallots, Green Eschalots, Garden Beet, Leafy Brassica Greens Subgroup, Okra and Turnip.
- **Field Crops** including Barley, Corn (sweet corn, field corn, field corn grown for seed and popcorn), Cotton, Grasses Grown for Seed, Peanuts, Soybeans, Sunflower, Wheat and Seed Treatment (sweet corn, field corn, field corn grown for seed and popcorn).
- **Fruit and Nut Crops** including Lychee, and Pecan.
- **Miscellaneous Crops:** Hops and Leatherleaf fern.

B: Turf and Ornamental Uses
[Alternate Brand Name: Tebuconazole 3.6]

- **Disease Control in Golf Course Turf**
- **Disease Control in Field, Nursery and Container Ornamentals and Commercial and Residential Landscapes** including: Roses, Flowers, Ornamental Crabapples, Dogwoods and Other Landscape Trees, Azaleas, Camellias, Rhododendrons and Other Landscape Ornamental Shrubs, Ground Covers, Vines and Leatherleaf Fern.

ACTIVE INGREDIENT:	**% BY WT.**
Tebuconazole: alpha-[2-(4-chlorophenyl)ethyl]-alpha-(1,1-dimethylethyl)-1*H*-1,2,4-triazole-1-ethanol	38.7%
OTHER INGREDIENTS:	61.3%
TOTAL:	100.0%

Contains 3.6 pounds Tebuconazole per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION / PRECAUCION

For PRODUCT USE information call 1-866-406-MANA (6262).

Manufactured for:
Makhteshim Agan of North America, Inc.
3120 Highwoods Blvd., Suite 100
Raleigh, NC 27604

EPA Reg. No. 66222-117 EPA Est. No.
NET CONTENTS:

A: Agricultural Uses

Orius® 3.6F

Group	3	Fungicide

Foliar Fungicide

ACTIVE INGREDIENT:	% BY WT.
Tebuconazole:	
alpha-[2-(4-chlorophenyl)ethyl]-alpha-(1,1-dimethylethyl)-1*H*-1,2,4-triazole-1-ethanol	38.7%
OTHER INGREDIENTS:	61.3%
TOTAL:	100.0%

Contains 3.6 pounds Tebuconazole per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION / PRECAUCION

Si usted no entiende la etiquette, busque a alguien para que se la explique a usted detalle.

(If you do not understand the label, find someone to explain it to you in detail).FIRST AID	
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For medical emergencies, call Prosar 24 hours a day at 1-877-250-9291. **NOTE TO PHYSICIAN:** No specific antidote. Treat symptomatically. **Symptoms of Poisoning:** The compound does not cause any definite symptoms that would be diagnostic. Contact with the eyes may cause irritation.	

For PRODUCT USE information call 1-866-406-MANA (6262).

Manufactured for:
Makhteshim Agan of North America, Inc.
3120 Highwoods Blvd., Suite 100
Raleigh, NC 27604

EPA Reg. No. 66222-117
NET CONTENTS:

EPA Est. No.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or Viton
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to mammals, fish, and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Ground Water Advisory: Tebuconazole is known to leach through soil into ground under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Surface Water Label Advisory: This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted within 48 hours.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) listed in the specific crop directions.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or Viton
- Shoes plus socks

Spray Volume: Orius® 3.6F may be applied in a minimum of 10 gallons of spray solution per acre by ground sprayer or in a minimum of 5 gallons of spray solution per acre by aircraft spray equipment. Check equipment calibration frequently. Complete coverage and uniform application are essential for the most effective results, especially when lower spray volumes are applied. If necessary, increase the spray volume per acre for complete crop coverage.

Chemigation: Apply Orius 3.6F through irrigation equipment only to Dry Bulb Onion, Garlic, Great-Headed (Elephant) Garlic, and Shallot to suppress anthracnose. Apply this product only through center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. Contact State Extension Service specialist, equipment manufacturers or other experts if you have questions regarding calibration. Do not connect an irrigation systems (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjusts if the need arises.

Chemigation: Apply Orius 3.6F through irrigation equipment only to leatherleaf fern in Florida to suppress anthracnose. Apply this product only through center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. Contact State Extension Service specialist, equipment manufacturers or other experts if you have questions regarding calibration. Do not connect an irrigation systems (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its

operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjusts if the need arises.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regular serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally dosed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. Pesticide may be applied continuously for the duration of the water application.

Mixing: Add labeled amount of Orius 3.6F into the spray tank while filling with water to the desired level. Operate the agitator while mixing. If other materials are added to the spray tank, the Orius 3.6F should be thoroughly dispersed prior to the addition of other materials.

Do not tank mix with products containing a prohibition against tank mixing. Follow the most restrictive labeling requirements of any tank mix product.

Compatibility: To determine the compatibility of Orius 3.6F with other products, use the following procedure: Pour the labeled proportions of the products into a suitable container of water, mix thoroughly and allow to stand at least five (5) minutes. If the combination remains mixed or can be remixed readily, the mixture is considered physically compatible. For further information contact your local Makhteshim Agan representative.

Resistance Management

Orius 3.6F is a Group 3 fungicide which exhibits no known cross-resistance to other fungicide groups. However, fungal pathogens are known to develop resistance to products with the same mode of action when used repeatedly. Any fungal population may contain or develop individuals that are resistant to Orius 3.6F and other Group 3 fungicides. If Group 3 fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted diseases, the resistance isolates may eventually dominate the fungal population. Because resistance development cannot be predicted, the use of this product should conform to resistance management strategies established for the crop and use area. Such strategies may include rotation and/or tank mixing with products having different modes of action or limiting the total number of applications per season. Contact your local extension

specialist, certified crop advisor, and/or manufacturer for fungicide resistance management and/or integrated disease management recommendations for specific crops and resistant disease populations. Makhteshim Agan of North America, Inc. encourages responsible management to ensure effective long-term control of the fungal disease on this label.

AGRICULTURAL CROPS
APPLICATION INSTRUCTIONS

VEGETABLE CROPS

CROP	DISEASE	RATE OF ORIUS 3.6 F
ASPARAGUS	Rusts *(Puccinia* spp.*)*	4 to 6 fl oz /A (per acre)
	Application Instructions: See Note 1 at the end of table. Applications may be made using ground or aerial application equipment. Apply Orius 3.6F as a foliar spray to the developing ferns after harvest of spears is completed. Apply at the earliest sign of rust pustules or when weather conditions are conducive for rust development. Apply 4 to 6 fl oz of Orius 3.6F /A (0.11 lb ai – 0.17 lb ai /A) in alternation with another effective fungicide. Under conditions of severe rust pressure, use the higher rate. Repeat applications on a 14-day interval as necessary to maintain control of rust. **Restrictions:** • Do not apply to harvestable spears. • Do not apply within 100 days of harvest in California and 180 days in all other states. • Do not make more than three foliar applications per season (18 fl oz/acre or 0.51 lb ai/A). • A 50 foot spray drift buffer zone is required for all aerial applications. • Restricted-entry interval (REI) = 12 hours.	
BEANS (fresh & dry except succulent shelled)	Rust *(Uromyces appendiculatus)*	4 to 6 fl oz /A
	Application Instructions: See Note 1 at the end of table. Apply Orius 3.6F in a protective spray schedule or when weather conditions are favorable for rust development. Repeat applications at 14-day intervals, or as necessary to maintain control. **Restrictions:** • Beans, fresh: Orius 3.6F may be applied up to 7 days before harvest. Do not apply more than 24 fl oz of Orius 3.6F /A per crop season. • Beans, dry: Orius 3.6F may be applied up to 14 days before harvest. Do not apply more than 12 fl oz of Orius 3.6F /A per crop season. • Restricted-entry interval (REI) = 12 hours.	
CUCURBIT VEGETABLES GROUP Chayote Chinese waxgourd Citron melon Cucumber	Powdery mildew (*Sphaerotheca fuliginea / Podosphaera xanthii) (Erysiphe cichoracearum)*	4 to 6 fl oz /A
	Gummy stem blight - suppression (*Didymella bryonae*) (watermelon, squash, pumpkin, and melons only)	8 fl oz /A

CROP	DISEASE	RATE OF ORIUS 3.6 F
Gherkin Edible gourd, (includes hyotan, cucuzza, hechima and Chinese okra) Momordica spp. (includes balsam apple, balsam pear, bitter melon and Chinese cucumber) Muskmelon (includes cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon and snake melon) Pumpkin Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow and zucchini) Winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash and spaghetti squash) Watermelon	**Application Instructions:** See Note 1 at the end of table. Apply the specified dosage in a protective spray schedule to foliage and fruit. Repeat at an interval of 10 to 14 days. **Restrictions:** • Do not apply more than 24 fl oz of Orius 3.6F /A per crop season. • Orius 3.6F may be applied up to 7 days before harvest. • Restricted-entry interval (REI) = 12 hours.	
DRY BULB ONION, GARLIC; GREAT-HEADED, (ELEPHANT) GARLIC SHALLOT	White rot *(Sclerotium cepivorum)*	White rot: 20.5 fl oz /A applied in a 4 to 6 inch band over/into each furrow. May be applied by chemigation to control white rot.
	Rust *(Puccinia allii, Puccinia porri)* Purple blotch *(Alternaria porii)*	4 to 6 fl oz /A

CROP	DISEASE	RATE OF ORIUS 3.6 F
	Application Instructions: See Note 2 at the end of table. **White rot**: For the control of white rot, make one application in the furrow at the time of planting. Make the in-furrow application at the rate of 20.5 fl oz Orius 3.6 F per acre. Apply the entire per acre rate in a 4 to 6 inch band over/into each furrow. Additional control may be obtained by including two foliar applications at 4 to 6 fl oz/acre. **Rust**: For the control of rust make foliar applications at the rate of 4 to 6 fl oz Orius 3.6 F per acre per application. Repeat at an interval of 10 to 14 days. Apply Orius 3.6F F in a protective spray schedule or when weather conditions are favorable for rust development. **Restrictions:** • Do not apply more than 32.5 fl oz Orius 3.6 F /A per season if an in-furrow treatment is made. If Orius 3.6 F is not applied as an in-furrow treatment then do not apply more than 12 fl oz Orius 3.6 F per acre per season as a foliar spray. • Do not apply within 7 days of harvest (PHI = 7 days). • Restricted-entry interval (REI) = 12 hours.	
GARDEN BEET roots and tops (leaves)	Cercospora leaf spot *(Cercospora beticola)*	3 to 7.2 fl oz /A
	Application Instructions: See Note 2 at the end of table. Make applications on 14 day intervals. **Restrictions:** • Do not apply more than 28.8 fl oz Orius 3.6F /A per season. • Do not apply within 7 days of harvest (PHI = 7 days). • Restricted-entry interval (REI) = 12 hours.	
GREEN ONION, LEEK, SPRING ONION, SCALLION, JAPANESE BUNCHING ONION, GREEN SHALLOTS, WELSH ONION, AND GREEN ESCHALOTS	White rot caused by *Sclerotium cepivorum* suppression only Rust *(Puccinia allii, Puccinia porri)* Purple blotch *(Alternia porii)*	4 to 6 fl oz /A
	Application Instructions: See Note 2 at the end of table. For the control of diseases make foliar applications using an interval of 10 to 14 days. Apply Orius 3.6F in a protective spray schedule or when weather conditions are favorable for rust development. **Restrictions:** • Do not apply more than 24 fl oz of Orius 3.6F /A per season. • Do not apply within 7 days of harvest (PHI = 7 days). • Restricted-entry interval (REI) = 12 hours.	
LEAFY BRASSICA GREENS (Broccoli raab, Chinese cabbage (bok choy), collards, kale, mizuma, mustard greens, mustard	Cercospora leaf spot *(Cercospora brassicicola)* Powdery mildew *(Erysiphe cruciferarum)* Alternaria leaf spot *(Alternaria brassicicola)*	3 to 4 fl oz /A

CROP	DISEASE	RATE OF ORIUS 3.6 F
spinach, rape greens, turnip greens)	**Application Instructions:** See Note 2 at the end of table. Make applications on a 10 day interval. **Restriction:** • Application to turnip greens is limited to East of the Rockies. • Do not apply more than 16 fl oz Orius 3.6F /A per season. • Do not apply within 7 days of harvest (PHI = 7 days). • Restricted-entry interval (REI) = 12 hours.	
OKRA	Cercospora leaf spot *(Cercospora spp.)*	4 to 6 fl oz /A
	Application Instructions: See Note 1 at the end of table. Apply specific dosage of Orius 3.6F in a preventative spray program. Use the highest rate when disease conditions are favorable and in areas where high disease pressure is expected. Applications may be repeated at 14-day intervals in order to maintain control of the disease. Apply specified dosage as a foliar spray in a minimum of 20 gallons of spray solution per acre by ground or a minimum of 5 gallons of spray solution by air. **Restriction:** • Applications may be made no closer than 3 days before harvest. • Do not apply more than 24 fl oz of Orius 3.6F per acre per season. • Restricted-entry interval (REI) = 12 hours.	
TURNIP (Application is limited to East of the Rockies)	Cercospora leaf spot *(Cercospora brassicicola)*	4 to 7.2 fl oz /A
	Application Instructions: See Note 1 at the end of table. Apply the specified dosage in a protective spray schedule to foliage. Repeat applications at 12- to 14-day intervals. **Restriction:** • Orius 3.6F may be applied up to 7 days before harvest. • Restricted-entry interval (REI) = 12 hours. • Do not apply more than 28.8 fl oz of Orius 3.6F /A per crop season.	
Note1: For optimum disease control, tank mix Orius 3.6F with the lowest labeled rate of a spray surfactant. Orius 3.6F must have two to four hours of drying time for the active ingredient to move systemically into plant tissue before rain or irrigation occurs. After this period of time, Orius 3.6F will be resistant to weathering. Orius 3.6F is a demethylation inhibitor (DMI) fungicide (Group 3). Contact your state Extension Service or Makhteshim Agan of North America, Inc. representative for a list of approved surfactants.		
Note 2: For optimum results use as a preventative treatment. Begin applications as soon as crop and/or environmental conditions become favorable for disease development. Tank mix Orius 3.6F with the lowest labeled rate of a spray surfactant. Orius 3.6F must have two to four hours of drying time on foliage for the active ingredient to move systemically into plant tissue before rain or irrigation occurs. After this period of time, Orius 3.6F will be resistant to weathering. Orius 3.6F is a demethylation inhibitor (DMI) fungicide (Group 3). Contact your state Extension Service or Makhteshim Agan of North America, Inc. representative for a list of approved surfactants.		

FIELD CROPS

CROP	DISEASE	RATE OF ORIUS 3.6 F
BARLEY*	Rusts (*Puccinia* spp.) Head blight (*Fusarium* spp.)– Suppression	4 fl oz /A

CROP	DISEASE	RATE OF ORIUS 3.6 F
	Notes: Apply Orius 3.6F in a minimum of 10 gallons of spray solution per acre by ground or in a minimum of 5 gallons of spray solution per acre by air. A maximum of 4 fl oz of Orius 3.6F may be applied per acre per crop season. Do not apply within 30 days of harvest. Straw cut after harvest may be fed or used for bedding. Grazing livestock or feeding of green forage is permitted 6 or more days after the last application of Orius 3.6F. Observe barley fields closely for early disease symptoms, particularly when susceptible varieties are planted and/or under prolonged conditions favorable for disease development. **Application timing directions:** Rusts: Apply Orius 3.6F at the earliest sign of rust pustules on foliage. Fusarium head blight: Optimal timing of Orius 3.6F for Fusarium head blight suppression is when main stem heads have fully emerged (Feekes 10.5) on 50% of the plants. **Restricted-entry Interval (REI) = 12 hours.**	
CORN* (sweet corn, field corn, field corn grown for seed, and popcorn)	Rust (*Puccinia* spp.) Northern leaf blight (*Helminthosporium turcicum*) Southern leaf blight (*Helminthosporium maydis*) Northern leaf spot (*Helminthosporium carbonum*) Gray leaf spot (*Cercospora zeae-maydis*)	4 to 6 fl oz /A
	Notes: Apply Orius 3.6F in a protective spray schedule or when weather conditions are favorable for disease development. Repeat applications at 7- to 14-day intervals, or as necessary to maintain control. A maximum of 24 fl oz (1.5 pint) of Orius 3.6F may be applied per acre per crop season. Sweet corn: Orius 3.6F may be applied up to 7 days before the harvest of ears or forage, and 49 days before the harvest of fodder. Field, seed, or popcorn: Orius 3.6F may be applied up to 21 days before the harvest of forage, and 36 days before the harvest of grain or fodder. **Restricted-entry interval (REI) for sweet corn = 19 days.** **Restricted-entry interval (REI) for all corn except sweet corn = 12 hours.**	
COTTON*	Southwestern cotton rust (*Puccinia cacabata*)	6 to 8 fl oz /A
	Notes: Apply Orius 3.6F in a protective spray schedule or when weather conditions are favorable for rust development. Repeat applications at 7- to 14-day intervals, or as necessary to maintain control. Orius 3.6F may be applied up to 30 days before harvest. Do not apply more than 24 fl oz of Orius 3.6F /A per crop season. Restricted-entry interval (REI) = 12 hours.	
GRASSES GROWN FOR SEED*	Rusts (*Puccinia* spp.)	4 to 8 fl oz /A
	Apply the specified rate of Orius 3.6F as soon as weather conditions are favorable for rust development or when first rust pustules are present. Repeat applications at 14- to 16-day intervals. Under heavy disease pressure use 6 to 8 fl oz/A and shorter spray intervals.	

CROP	DISEASE	RATE OF ORIUS 3.6 F
	Powdery mildew	4 to 8 fl oz /A
	Apply specified rate of Orius 3.6F when powdery mildew first appears on the leaves. Repeat applications at 14- to 16-day intervals. Under heavy disease pressure use 6 to 8 fl oz/A and shorter spray intervals. **Comments:** Apply the specified rate in a minimum of 20 gallons of water per acre with ground sprayers or in a minimum of 10 gallons of water per acre with aircraft. Thorough coverage is important for optimum disease control. A maximum of 16 fluid ounces (1 pint) may be applied per acre per crop season. Orius 3.6F may be applied up to 4 days before harvest. Chaff, screenings and straw from treated areas may be used for feed purposes; however, do not use forage, cut green crop, or use seed for feed purposes. Regrowth may be grazed starting 17 days after last application. **Restricted-entry interval (REI) = 12 hours**	
PEANUTS**	**SOILBORNE:** Sclerotium stem and pod rot (white mold, southern blight, southern stem rot) Rhizoctonia limb rot Rhizoctonia pod rot (Virginia and North Carolina only) **FOLIAR:** Early leaf spot Late leaf spot Leaf rust Web blotch (Phoma) Pepper spot (Leptosphaerulina)	7.2 fl oz /A

CROP	DISEASE	RATE OF ORIUS 3.6 F
	FOUR-APPLICATION SPRAY PROGRAM: Apply the specified rate in a preventive spray schedule. See table below for proper timing of applications. Make applications of chlorothalonil prior to and following applications of Orius 3.6F to discourage development of resistant strains of fungi. For optimum control of foliar diseases such as leaf rust, web blotch, and pepper spot, tank mix Orius 3.6F with the lowest label labeled rate of a spray surfactant. **LEAF SPOT ADVISORY SCHEDULE:** For control of soilborne diseases in an advisory schedule, apply Orius 3.6F in the first advisory spray in July and continue Orius 3.6F applications at 14-day intervals. After August 15, tank mix Orius 3.6F with Chlorothalonil for resistance management purposes. **DIRECTIONS:** For optimum control of the specified soilborne diseases, four consecutive applications of Orius 3.6F must be made at 14-day intervals. A maximum of 28.8 fluid ounces of Orius 3.6F may be applied per crop season. Orius 3.6F may be applied up to 14 days before harvest. Do not feed hay or threshings or allow livestock to graze in treated areas. Orius 3.6F is a sterol demethylation inhibitor (DMI) fungicide. Chlorothalonil may be tank mixed at the rate of 12 ounces of active ingredient with Orius 3.6F as a leaf spot resistance management strategy. A spray surfactant is not necessary when Orius 3.6F is tank mixed with Chlorothalonil. Mixing or alternating Orius 3.6F with other DMI fungicides may lead to resistance. Orius 3.6F must be carried by rainfall or irrigation into the root and pod zone for control of root and pod rots caused by *Sclerotium rolfsii* and *Rhizoctonia solani*. Drought conditions will decrease the effectiveness of Orius 3.6F against the root and pod rots. Use Orius 3.6F in conjunction with cultural practices that are known to reduce the severity of soilborne diseases, such as proper crop rotation practices. **Restricted-entry Interval (REI) = 12 hours.**	
SOYBEAN	Rust *(Phakopsora pachyrhizi)* *Powdery mildew* (Microsphaera diffusa)	3 to 4 fl oz /A
	Use Directions: Apply Orius 3.6F as a broadcast foliar spray as a preventative spray or at first visible symptoms of disease. Repeat applications on a 10- to 14-day spray interval if environmental conditions are favorable for continued disease development. Use the higher rates and shorter spray intervals when disease pressure is severe. Tank mix Orius 3.6F with the lowest labeled rate of a spray surfactant. Apply Orius 3.6F in a minimum for 10 gallons of spray solution per acre by ground sprayer or in a minimum of 5 gallons per acre by aircraft spray equipment. **Restrictions**: Applications may not be made within 21 days of harvest. Do not apply more than 3 applications per season. Do not apply more than 12 fl oz/A per season. **Restricted-entry interval (REI) = 12 hours.**	
SUNFLOWER*	Rust (*Puccinia helianthi*)	4 to 6 fl oz /A

CROP	DISEASE	RATE OF ORIUS 3.6 F
	Notes: Apply specific dosage of Orius 3.6F at the earliest sign of infestation (rust pustules developing) or when weather conditions are favorable for rust development. Apply higher rate to highly susceptible varieties and/or under severe disease conditions. Application may be repeated at 14 days if necessary to maintain control of the disease. Apply specified dosage in a minimum of 20 gallons of spray solution per acre by ground or a minimum of 5 gallons of spray solution by air. Do not apply more than 16 fl oz of Orius 3.6F /A per season or within 50 days of harvest. **Restricted-entry interval (REI) = 12 hours.**	
WHEAT*	Rusts; leaf, stem, and stripe (*Puccinia* spp.) Head blight or scab (*Fusarium* spp.) – Suppression	4 fl oz /A
	Notes: Observe wheat fields closely for early disease symptoms, particularly when susceptible varieties are planted and/or under prolonged conditions favorable for disease development. A maximum of 4 fl oz of Orius 3.6F may be applied per acre per crop season. Do not apply within 30 days of harvest. Straw may be fed or used for bedding. Do not allow livestock to graze or feed green forage to livestock prior to 6 days after treatment with Orius 3.6F. Apply Orius 3.6F in a minimum of 10 gallons of spray solution per acre by ground, or in a minimum of 5 gallons of spray solution per acre by air. **Application timing directions:** Rusts: Apply Orius 3.6 F at the earliest sign of rust pustules on foliage. Fusarium head blight: Optimal timing of Orius 3.6F for Fusarium head blight suppression is the beginning of flowering on main stem heads (Feekes 10.51) **Restricted-entry Interval (REI) = 12 hours.**	

* For optimum disease control, tank mix Orius 3.6F with the lowest labeled rate of a spray surfactant. Orius 3.6F must have two to four hours of drying time on plant foliage for the active ingredient to move systemically into plant tissue before rain or irrigation occurs. After this period of time, Orius 3.6F will be resistant to weathering. Orius 3.6F is a demethylation inhibitor (DMI) fungicide (Group 3). Contact your state Extension Service or Makhteshim Agan of North America, Inc. representative for a list of approved surfactants.

** For optimum control of White Mold and Rhizoctonia Limb and Pod Rot follow the following spray program:
7 Applications: Apply Chlorothalonil at spray intervals 1, 2, and 7. Apply Orius 3.6F at spray intervals 3, 4, 5, and 6.

SEED TREATMENT- Corn (Sweet Corn, Field Corn, Field Corn Grown For Seed, and Popcorn) For control of soilborne and seedborne Fusarium and soilborne and seedborne head smut.		
SEED LABELING: To meet U.S. Federal Seed Act requirements, all seed treated with Orius 3.6F must be labeled: **"TREATED SEED. DO NOT USE FOR FOOD, FEED, OR OIL PURPOSES."** **"Treated with Tebuconazole."** **"Excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticide remain in ethanol by-products that are used in agronomic practice."**		
USE PRECAUTION: When using formulations that do not contain dye, to comply with 40 CFR 153.155, all seed treated with an economic poison must be colored to distinguish and prevent subsequent inadvertent use as a food for man or feed for animals.		
DISEASE	**RATE FL OZ/CWT**	**DIRECTIONS FOR USE**
Soilborne and Seedborne Fusarium	0.071	Apply as a seed treatment using standard slurry or mist-type seed treatment equipment. Uniform application of seed is necessary to ensure seed safety and best disease protection. Use only sound and well-cured seed for treatment. Dilute product with sufficient water to ensure complete seed coverage. Consult a seed treatment specialist regarding slurry rates specified for the crop to be treated with Orius 3.6F. The length of control will vary depending on the rate used.
Soilborne and Seedborne Head smut (*Sphacelotheca reiliana*)	0.27-0.54	

FRUIT AND NUT CROPS

CROP	**DISEASE**	**RATE OF ORIUS 3.6 F**
LYCHEE*	Anthracnose (*Colletotrichum gloeosporioides*)	4 to 6 fl oz /A
	Notes: Begin first application of Orius 3.6F as panicle emerges. Spray up to 6 fl oz /A every 10 days thereafter for a total of 8 sprays. Apply specified dosage in a minimum of 50 gallons of spray solution per acre by ground only. Do not apply more than 48 fl oz of Orius 3.6F /A per season. Orius 3.6F can be applied up to and including the day of harvest (PHI = 0 days). **Restricted-entry interval (REI) = 2 days.**	
PECAN*	Brown leaf spot (*Sirosporium diffusium*) Downy spot (*Mycosphaerella caryigena*) Liver spot (*Gnomonia caryae*) Scab (*Cladosporium caryigenum*) Vein spot (*Gnomonia nerviseda*) Zonate leaf spot (*Grovesinia pyramidalis*)	4 to 8 fl oz /A

	Notes: Apply Orius 3.6F in a preventive spray schedule beginning at early bud break (young leaves unfolding), and continue applications at 10- to 14-day intervals through the pollination period. Apply Orius 3.6F at 4 fl oz /A in a tank-mix with the labeled rate of Super-Tin® in cover sprays. Follow label directions for the use of Super-Tin. Do not add a surfactant to the spray solution when tank-mixing Orius 3.6F with Super-Tin. Apply Orius 3.6F in a spray volume of 15 or more gallons per acre by air or 50 or more gallons per acre by ground. Apply 7 to 8 fl oz /A of Orius 3.6F to full-size mature trees, and 4 to 6 fl oz /A of Orius 3.6F to smaller trees. Apply the high rate to varieties that are highly susceptible to the indicated diseases, or when severe disease conditions exist. The lowest labeled rate of a surfactant may be added to the spray solution for optimum control of the indicated diseases. Do not apply after shucks begin to split. A maximum of 32 fl oz of Orius 3.6F may be applied per acre per crop season. Do not cut cover crops in treated areas for feed or allow livestock to graze treated areas. **Comments:** It may be applied in a tank-mix or alternated (every other spray application) with a non-DMI fungicide as a resistance management strategy. **Restricted-entry interval (REI) = 12 hours.**
* For optimum disease control, tank mix Orius 3.6F with the lowest specified rate of a spray surfactant. Orius 3.6F must have two to four hours of drying time on plant foliage for the active ingredient to move systemically into plant tissue before rain or irrigation occurs. After this period of time, Orius 3.6F will be resistant to weathering. Orius 3.6F is a demethylation inhibitor (DMI) fungicide (Group 3).	

MISCELLANEOUS CROPS

CROP	DISEASE	RATE OF ORIUS 3.6 F
HOPS*	Powdery mildew (*Sphaerotheca humuli* / *Sphaerotheca macularis*)	4 to 8 fl oz /A
	Notes: Apply the specified dosage in a protective spray schedule to foliage. Repeat at an interval of 10 to 14 days. Orius 3.6F may be applied up to 14 days before harvest. Do not apply more than 32 fl oz of Orius 3.6F /A per crop season. Increase the spray volume and the application rate as vine growth increases during the season. **Restricted-entry interval (REI) = 12 hours.**	
* For optimum disease control, tank mix Orius 3.6F with the lowest specified rate of a spray surfactant. Orius 3.6F must have two to four hours of drying time on plant foliage for the active ingredient to move systemically into plant tissue before rain or irrigation occurs. After this period of time, Orius 3.6F will be resistant to weathering. Orius 3.6F is a demethylation inhibitor (DMI) fungicide (Group 3).		

PLANT	DISEASE	RATE OF ORIUS 3.6 F
LEATHERLEAF FERN (FLORIDA ONLY)	Anthracnose (suppression)	5 to 10 fl oz /A
	Notes: Make the first application before anthracnose symptoms are present and continue at 12- to14-day intervals. **USE RESTRICTIONS:** A maximum of 5 pints of Orius 3.6F may be applied per acre per year.	

Comments: Apply Orius 3.6F in a minimum of 5 gallons of spray solution per acre using ground equipment or chemigation.
Restricted-entry interval (REI) = 12 hours.
USE LIMITATIONS:
Orius 3.6F can cause phytotoxicity to Leatherleaf fern under certain environmental conditions. Applications in temperatures less than 70°F can cause phytotoxicity in the form of leaf burning and/or yellowing. Application followed by temperatures falling below 55°F can cause similar symptoms. Before using this product on Leatherleaf Fern, read the **LIMITATION OF WARRANTY AND LIABILITY** section in its entirety.

OBSERVE THE FOLLOWING RESTRICTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, AND ESTUARIES.

- Apply only during alternate years in fields adjacent to aquatic areas listed above.
- Do not apply by ground or air within 100 feet of aquatic areas listed above.
- Do not cultivate within 10 feet of an aquatic area to allow growth of a vegetative filter strip.

Spray Drift Management: For aerial applications, mount the spray boom on the aircraft so as to minimize drift caused by wing tip vortices. Use the minimum practical boom length, and do not exceed 75% of the wing span or rotor diameter. Use the largest droplet size consistent with pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. Apply in a minimum of 5 gallons of spray solution per acre by aircraft spray equipment. Release the spray at the lowest possible height consistent with good pest control and flight safety. Avoid applications more than 10 feet above the crop canopy. Make aerial or ground applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area. Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature. Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

ROTATIONAL CROPS

Treated areas may be replanted with any crop specified on this label as soon as practical after last application. Any crop not specified on this label may be planted into treated areas 120 days after last application.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

STORAGE:

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Do not store above 100°F for extended periods of time. Storage below 20°F can result in formation of crystals. If product crystallizes, store at 50°F to 70°F and agitate to redissolve crystals. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

PESTICIDE DISPOSAL:

Open dumping is prohibited. Pesticide wastes are toxic. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the hazardous waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

Rigid, Nonrefillable containers small enough to shake (i.e. with capacities equal to less than five gallons).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

Rigid, Nonrefillable containers that are too large to shake (i.e. with capacities greater than 5 gallons or 50 lbs).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

Refillable Container

Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Refilling or Returning Containers

If refilling or returning container is planned, end users are not authorized to remove tamper evident cables, one way values or clean container.

Recycle or Disposal of Containers

End users are authorized to remove tamper evident cable as required to remove the product from the container unless the container is equipped with one way valves and refilling or returning is planned. Instructions for container rinsing and either recycling or disposal are as follows:

Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums and Kegs).

Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS**, **DISCLAIMER OF WARRANTIES** and **LIMITATIONS OF LIABILITY**.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Makhteshim Agan of North America, Inc. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc.'s election, the replacement of product.

To the extent consistent with applicable law, MANA accepts no responsibility and shall not be liable for phytotoxicity or side effects of Orius 3.6F under any conditions.

Orius is a registered trademark of Irvita Plant Protection, N.V.

Orius 3.6F (66222-117) (SAL 04-23-2013) (NOTIF 12-10-2013)

B: Turf and Ornamental Uses

Orius® 3.6F

Group	3	Fungicide

[Alternate Brand Name: Tebuconazole 3.6]
Foliar Fungicide

ACTIVE INGREDIENT:	% BY WT.
Tebuconazole: alpha-[2-(4-chlorophenyl)ethyl]-alpha-(1,1-dimethylethyl)-1*H*-1,2,4-triazole-1-ethanol	38.7%
OTHER INGREDIENTS:	61.3%
TOTAL:	100.0%

Contains 3.6 pounds Tebuconazole per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION / PRECAUCION

Si usted no entiende la etiquette, busque a alguien para que se la explique a usted detalle.
(If you do not understand the label, find someone to explain it to you in detail).

FIRST AID	
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For medical emergencies, call Prosar 24 hours a day at 1-877-250-9291. **NOTE TO PHYSICIAN:** No specific antidote. Treat symptomatically. **Symptoms of Poisoning:** The compound does not cause any definite symptoms that would be diagnostic. Contact with the eyes may cause irritation.	

Manufactured for:
Makhteshim Agan of North America, Inc.
3120 Highwoods Blvd., Suite100
Raleigh, NC 27604

EPA Reg. No. 66222-117
NET CONTENTS:

EPA Est. No.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or Viton
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to mammals, fish, and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Ground Water Advisory: Tebuconazole is known to leach through soil into ground under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Surface Water Label Advisory: This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted within 48 hours.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours for all crops.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or Viton
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: Do not enter or allow others to enter the treated area until sprays have dried.

Spray Volume: For turf, apply Orius® 3.6F in 66-132 gallons of water per acre by ground sprayer. For ornamentals other than leatherleaf fern, use 50-300 gallons of finished spray per acre depending upon equipment, plant species and plant growth stage at the time of application. For leatherleaf fern, apply Orius 3.6F in a minimum of 5 gallons of finished spray per acre using ground equipment or chemigation. Check equipment calibration frequently. Complete coverage and uniform application are essential for the most effective results, especially when lower spray volumes are applied. If necessary, increase the spray volume per acre for complete crop coverage.

Chemigation: Apply Orius 3.6F through irrigation equipment only to leatherleaf fern in Florida to suppress anthracnose. Apply this product only through center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. Contact State Extension Service specialist, equipment manufacturers or other experts if you have questions regarding calibration. Do not connect an irrigation systems (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjusts if the need arises.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regular serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional

equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally dosed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. Pesticide may be applied continuously for the duration of the water application.

Mixing: Add labeled amount of Orius 3.6F into the spray tank while filling with water to the desired level. Operate the agitator while mixing. If other materials are added to the spray tank, the Orius 3.6F should be thoroughly dispersed prior to the addition of other materials.

Do not tank mix with products containing a prohibition against tank mixing. Follow the most restrictive labeling requirements of any tank mix product.

Compatibility: To determine the compatibility of Orius 3.6F with other products, use the following procedure: Pour the labeled proportions of the products into a suitable container of water, mix thoroughly and allow to stand at least five (5) minutes. If the combination remains mixed or can be remixed readily, the mixture is considered physically compatible. For further information contact your local Makhteshim Agan representative.

Resistance Management

Orius 3.6F is a Group 3 fungicide which exhibits no known cross-resistance to other fungicide groups. However, fungal pathogens are known to develop resistance to products with the same mode of action when used repeatedly. Any fungal population may contain or develop individuals that are resistant to Orius 3.6F and other Group 3 fungicides. If Group 3 fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted diseases, the resistance isolates may eventually dominate the fungal population. Because resistance development cannot be predicted, the use of this product should conform to resistance management strategies established for the crop and use area. Such strategies may include rotation and/or tank mixing with products having different modes of action or limiting the total number of applications per season. Contact your local extension specialist, certified crop advisor, and/or manufacturer for fungicide resistance management and/or integrated disease management recommendations for specific crops and resistant disease populations. Makhteshim Agan of North America, Inc. encourages responsible management to ensure effective long-term control of the fungal disease on this label.

TURF AND ORNAMENTAL USES

DISEASE CONTROL IN GOLF COURSE TURF

PRODUCT INFORMATION

For use on all Golf turf applications of cool season and warm season grasses (such as Bentgrasses, Bluegrasses, Fescues, Ryegrasses, St. Augustine grasses, and Zoysia) or their mixtures. Orius 3.6F is not phytotoxic to any of the above mentioned grasses when used in accordance with the label.
Note: Bermudagrass can be sensitive to Orius 3.6F under certain conditions. Do not apply consecutive applications during or just after dormancy break. Avoid applications when temperatures are expected to exceed 85° F.

Orius 3.6F can be used for the prevention and control of the diseases mentioned in table below. Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Preventative treatments can be applied using 28 day intervals as indicated. When treating golf greens, always treat aprons and approaches. Spray uniformly over the area to be treated with properly calibrated equipment. Apply the specified amount of Orius 3.6F Fungicide in sufficient water for thorough coverage. Use a volume of 66 – 132 gallons /A (1.5 – 3.0 gallons per 1,000 sq ft). Apply using properly calibrated low volume, hand held, mechanical or motorized ground broadcast equipment. Application to small areas may be made with low-pressure handwand or backpack equipment.

Depending on the disease, Orius 3.6F should be watered into the crown and active root zone for best results. Make all applications after mowing and allow foliage to dry thoroughly before irrigation. For best results use spray mixture the same day it is prepared.

USE RESTRICTIONS

- For use on golf course turf only.
- Not for residential use.
- Not for use on turf being grown for sale or commercial use as sod.
- Do not use on home lawns and turf sites associated with apartment buildings, daycare centers, playgrounds, playfields, recreational park athletic fields, athletic fields located on or next to schools (i.e., elementary, middle and high school), campgrounds, churches, and theme parks.
- Do not use clippings for animal feed.
- Do not exceed 3.6 fl oz of Orius 3.6F per 1,000 sq ft per year.
- Do not apply more than 6 applications per year in all states except New York, and do not apply more than 3 applications at 0.6 fl. oz / 1,000 sq ft (2.2 lb. Tebuconazole/acre) per year in New York State.

APPLY ORIUS 3.6F AT A RATE OF 0.6 to 1.1 FL OZ/1000 SQ FT	
DISEASE	**REMARKS**
Anthracnose -Basal and Foliar (*Colletotrichum cereale*)*	For prevention, begin applications when conditions are favorable for disease development.
Bermuda Grass decline (*Gaeumannomyces graminis* var. *graminis*)	For prevention, begin applications two or four weeks prior to the historical appearance of disease symptoms. Apply subsequent applications at 21 day intervals. Initiate cultural control practices at the same time the fungicide is applied. Refer to your local County Extension Service for this information. Immediately after fungicide is applied, the area should be irrigated with sufficient water to move the active ingredient down into the crown and root zone of the turf. The amount of water is dependent on the depth of the root zone.

APPLY ORIUS 3.6F AT A RATE OF 0.6 to 1.1 FL OZ/1000 SQ FT	
DISEASE	**REMARKS**
Brown Patch, Rhizoctonia Blight, Large Patch (*Rhizoctonia solani*)*	For prevention, begin applications when conditions are favorable for disease development.
Brown Ring Patch (*R. circinata*)**Copper Spot** (*Gloeocercospora sorghi*)*	For prevention, begin applications when conditions are favorable for disease development.
Corticium Red Thread (*Laetisaria fuciformis*)*	For prevention, begin applications when conditions are favorable for disease development.
Dollar Spot (*Sclerotinia homoeocarpa*)*	For prevention, begin applications when conditions are favorable for disease development.
Fairy Ring (*Chlorophyllum (Lepiota), Lycoperdon, Marasmius spp.)*	For Cool Season turf make preventative applications in the spring when soil temperatures reach 55-60° F. Make applications at no less than 21 days intervals. Immediately after fungicide is applied, the area should be irrigated with sufficient water to move the active ingredient down into the crown and root zone of the turf. The amount of water is dependent on the depth of the root zone. Do not use a wetting agent under hydrophilic soil conditions. Dormancy breaking Warm Season turf, do not make two consecutive applications of Orius 3.6F or another fungicide containing the active ingredient Tebuconazole. Alternate with another fungicide containing a different mode of action. Use a wetting agent under hydrophobic soil conditions.
Fusarium Patch (*Fusarium roseum*)	Apply first application in mid-June or 14-28 days prior to time this blight normally becomes evident. Make applications at no less than 21 days intervals.
Gray Leaf Spot (*Pyricularia grisea*)	Apply when conditions are favorable for disease development at 21 day intervals. Under conditions favoring moderate to heavy disease pressure, Orius 3.6F can be tank mixed with a registered contact fungicide at label rate.
Gray Snow Mold/Typhula Blight *(Typhula incarnate)*	Apply in the fall, before anticipated turf dormancy and before first snow cover. If turf breaks dormancy during winter months, a second application may be made. Do not apply over snow cover, or when turf is dormant. It is recommended that Orius 3.6F be tank-mixed with other registered snow mold products for best season long results.
Necrotic Ring Spot *(Leptosphaeria korrea)*	For prevention, apply in fall when soil temperature reaches 55-60° F and again in spring under similar soil temp conditions or after dormancy break. Immediately after fungicide is applied, irrigate the area with sufficient water to move the active ingredient down into the crown and active root zone of the turf. The amount of water is dependent on the depth of the root zone.
Pink Patch (*Limonomyces rosipellis*)*	For prevention, begin applications when conditions are favorable for disease development.

APPLY ORIUS 3.6F AT A RATE OF 0.6 to 1.1 FL OZ/1000 SQ FT	
DISEASE	**REMARKS**
Pink Snow Mold/Microdochium Patch *(Microdochium nivalis)*	Apply in the fall, before anticipated turf dormancy and before first snow cover. If turf breaks dormancy during winter months, a second application may be made. Do not apply over snow cover, or when turf is dormant. It is recommended that Orius 3.6F be tank-mixed with other registered snow mold products for best season long results.
Powdery Mildew *(Erysiphe graminis)**	For prevention, begin applications when conditions are favorable for disease development.
Red Thread *(Laetisaria fuciformis)**	For prevention, begin applications when conditions are favorable for disease development.
Rusts *(Puccinia* spp.)*	For prevention, begin applications when conditions are favorable for disease development.
Spring Dead Spot *(Leptosphaeria korrea, L. narmari, Ophiosphaerella herpotricha, Gaeumannomyces graminis)*	For prevention, apply in fall when soil temperature reaches 55-60° F and again in spring under similar soil temp conditions or after dormancy break. Immediately after fungicide is applied, irrigate the area with sufficient water to move the active ingredient down into the crown and active root zone of the turf. The amount of water is dependent on the depth of the root zone.
Stripe Smut *(Ustilago striiformis)*	Make a single application to historical disease areas in spring as grass growth begins.
Summer Patch *(Magnaporthe poae)*	Apply beginning in the spring. Do not make two consecutive applications of Orius 3.6F. Alternate with another fungicide with a different mode of action. Second and third applications may be made at 28 day intervals. See local university recommendations for suggested timing. Immediately after fungicide is applied, irrigate the area with sufficient water to move the active ingredient down into the crown and active root zone of the turf. The amount of water is dependent on the depth of the root zone.
Take All Patch *(Gaeumannomyces graminis)*	For prevention, apply in the fall when soil temperature reaches 55-60° F and again in the spring under similar soil temperature conditions. Applications in both fall and spring subsequent applications at 21 day intervals may be necessary. Immediately after fungicide is applied, the area should be irrigated with sufficient water to move the active ingredient down into the crown and active root zone of the turf. The amount of water is dependent on the depth of the root zone.
Zoysia Patch, Large Patch of Zoysia *(Rhizoctonia solani)*	Make first application in early fall (mid-September to mid-October) prior to development of disease symptoms. A second application in early spring may be necessary in areas where disease pressure is known to be heavy.
* Do not make two consecutive applications of Orius 3.6F. Alternate with another fungicide with a different mode of action. A second application may be made after 21 days.	

DISEASE CONTROL IN FIELD, NURSERY AND CONTAINER ORNAMENTALS AND COMMERCIAL and RESIDENTIAL LANDSCAPES

PRODUCT INFORMATION

Orius 3.6F can be used in a preventative and curative disease control program for the listed plant types and disease in the table below. Optimum disease management is obtained when Orius 3.6 F is used in conjunction with sound disease management practices.

Apply material with properly calibrated hand held, mechanical or motorized spray equipment. Begin applications when disease first appears and repeat at 14-21 day intervals during the growing season. Use the shortest interval when conditions are unusually favorable for the development of disease. For hand held, mechanical, or motorized applications, mix as directed below and apply as a full coverage spray to drip for the prevention and control of the diseases listed below. Choose a finished spray volume appropriate for the size of the plants and amount of foliage, which will provide thorough coverage throughout the canopy. Allow sprays to dry before overhead irrigation is applied.

USE RESTRICTIONS

- Apply Orius 3.6F at rates of 4-10 fl oz /A in 100 gallons of water. Spray volume may range from 50 up to 300 gallons of finished spray per acre depending upon equipment, plant species and plant growth stage at time of application.
- Do not apply more than 10 fl oz /A in a single application.
- Do not apply more than 0.31 gallons (40 fl oz) of this product (equal to 1.13 lbs of Tebuconazole) /A per year.
- Do not make more than 4 applications per year at highest rate.
- Do not apply to bearing fruit trees or vegetables.
- For use on ornamental plants only; not for woodlands or forest management.
- Intended for use only by professional applicators.

NOTE: The **DIRECTIONS FOR USE** section of this product reflect the cumulative inputs from both historical field use and product testing programs. However, it is impossible to test this product on all species and cultivars. A preliminary trial is suggested on a small scale before a full treatment is applied to any plant type not shown on this label but found in a similar use site with a listed disease problem. Wait 5-7 days after treatment to evaluate results. This product is not recommended for use on African Violets, Begonias, Boston Fern, and Geraniums.

ORNAMENTALS DISEASE CONTROL

PLANTS	DISEASE	APPLICATION	
		TO PREVENT DISEASE	TO TREAT DISEASE
Roses	Black Spot Powdery Mildew Rust	Apply every 14-21 days during the growing season, starting when leaves first appear.	Apply every 14 days for a total of 3 applications beginning at the first sign of disease.
Flowers	Leaf Spot Powdery Mildew Rust Southern Blight	Apply at least 3 times per year, 14-21 days apart, beginning with spring bud break. Rotation or tank-mixing with barrier protectant fungicides is recommended for resistance management.	
Crabapples (Ornamental), Dogwoods and other Landscape (ornamental) Trees	Anthracnose Leaf Spot Powdery Mildew Rust Scab		
Azaleas, Camellias, Rhododendrons and other Landscape (Ornamental) Shrubs	Anthracnose Black Spot Leaf Spot Petal Blight Powdery Mildew	Petal Blight: Apply 2-3 times per week into the flowers as they open and develop color.	
Ground Covers and			

Vines	Rust Southern Blight		

For small plantings, add 1 teaspoon of Orius 3.6F to 2.5 gallons of water.

Pump Style Sprayers

1. Add the appropriate amounts of concentrate and water to the sprayer tank.
2. Close the sprayer, shake well and pressurize
3. Adjust nozzle to a coarse spray pattern and apply.
4. Occasionally repressurize the sprayer, if needed, to maintain a good spray pattern.

PLANT	DISEASE	RATE OF ORIUS 3.6 F
LEATHERLEAF FERN (FLORIDA ONLY)	Anthracnose (suppression)	5 to 10 fl oz /A
	Notes: Make the first application before anthracnose symptoms are present and continue at 12- to14-day intervals. **USE RESTRICTIONS:** A maximum of 5 pints of Orius 3.6F may be applied per acre per year.	
Comments: Apply Orius 3.6F in a minimum of 5 gallons of spray solution per acre using ground equipment or chemigation. **USE LIMITATIONS:** Orius 3.6F can cause phytotoxicity to Leatherleaf fern under certain environmental conditions. Applications in temperatures less than 70°F can cause phytotoxicity in the form of leaf burning and/or yellowing. Application followed by temperatures falling below 55°F can cause similar symptoms. Before using this product on Leatherleaf Fern, read the **LIMITATION OF WARRANTY AND LIABILITY** section in its entirety		

OBSERVE THE FOLLOWING RESTRICTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, AND ESTUARIES.

- Apply only during alternate years in fields adjacent to aquatic areas listed above.
- Do not apply by ground or air within 100 feet of aquatic areas listed above.
- Do not cultivate within 10 feet of an aquatic area to allow growth of a vegetative filter strip.

Spray Drift Management

For aerial applications, mount the spray boom on the aircraft so as to minimize drift caused by wing tip vortices. Use the minimum practical boom length, and do not exceed 75% of the wing span or rotor diameter. Use the largest droplet size consistent with pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. Apply in a minimum of 5 gallons of spray solution per acre by aircraft spray equipment. Release the spray at the lowest possible height consistent with good pest control and flight safety. Avoid applications more than 10 feet above the crop canopy. Make aerial or ground applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area. Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature. Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

STORAGE:

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Do not store above 100°F for extended periods of time. Storage below 20°F can result in formation of crystals. If product crystallizes, store at 50°F to 70°F and agitate to redissolve crystals. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

PESTICIDE DISPOSAL:

Open dumping is prohibited. Pesticide wastes are toxic. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the hazardous waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

Rigid, Nonrefillable containers small enough to shake (i.e. with capacities equal to less than five gallons).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

Rigid, Nonrefillable containers that are too large to shake (i.e. with capacities greater than 5 gallons or 50 lbs).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

Refillable Container

Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Refilling or Returning Containers

If refilling or returning container is planned, end users are not authorized to remove tamper evident cables, one way values or clean container.

Recycle or Disposal of Containers

End users are authorized to remove tamper evident cable as required to remove the product from the container unless the container is equipped with one way valves and refilling or returning is planned. Instructions for container rinsing and either recycling or disposal are as follows:

Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums and Kegs).

Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS**, **DISCLAIMER OF WARRANTIES** and **LIMITATIONS OF LIABILITY**.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Makhteshim Agan of North America, Inc.. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc.'s election, the replacement of product.

To the extent consistent with applicable law, MANA accepts no responsibility and shall not be liable for phytotoxicity or side effects of Orius 3.6F used on Leatherleaf ferns under any conditions.

Orius is a registered trademark of Irvita Plant Protection, N.V.

Orius 3.6F (66222-117) (SAL 04-23-2013) (NOTIF 12-10-2013)